Appl. No. 10/553,332 Amendment and Response

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

 (Currently Amended) A sensor apparatus adapted to be used with milk extraction machinery, the milk extraction machinery including a plurality of extraction elements <u>for</u> <u>connection to a dairy animal</u> which when activated are adapted to deliver extracted milk from two or more extraction elements into a single collection line, <u>the sensor apparatus emperising</u> including:

a sensor <u>forming a serial extension of associated with</u> the single collection line, wherein the sensor is adapted to detect a particular property of the milk extracted, and

a controller adapted configured to control the activation of the extraction elements[[,]]
whereby activation of the extraction elements is controlled during a pre-determined period of
milking the animal such that to prevent the sensor being is exposed to extracted milk supplied
from all only one of the extraction element or one pair of extraction elements at any one time.

wherein the sensor apparatus is configured to identify the detected property of the extracted milk with the extraction element or elements from which the milk was extracted.

- (Cancelled).
- (Previously Presented) The sensor apparatus as claimed in claim 1 wherein the extracted milk supplied by an extraction element is foremilk.
- (Previously Presented) The sensor apparatus as claimed in claim 1 wherein an extraction element is formed from a single teatcup which includes a pulsator valve associated with a pulsation system.

Appl. No. 10/553,332 Amendment and Response

 (Previously Presented) The sensor apparatus as claimed in claim 4 which includes four extraction element teatcups associated with four independent pulsator lines.

 (Previously Presented) The sensor apparatus as claimed in claim 1 wherein the single collection line collects all milk delivered from a single animal.

(Cancelled).

 (Previously Presented) The sensor apparatus as claimed in claim 1 wherein a sensor measures electrical conductivity.

 (Previously Presented) The sensor apparatus as claimed in claim 4 wherein the controller is formed by a pulsator controller of a dairy animal milking machine.

 (Previously Presented) The sensor apparatus as claimed in claim 9 wherein the pulsator controller sequentially activates the pulsator valves of each teatcup.

11. (Previously Presented) The sensor apparatus as claimed in claim 10 wherein a single extraction element only is pulsated at one time.

12. (Previously Presented) The sensor apparatus as claimed in claim 10 wherein a pair of extraction elements are pulsated at one time.

13. (Previously Presented) The sensor apparatus as claimed in claim 1 wherein the controller allows a drainage delay period between activation of different extraction elements.

14. (Previously Presented) The sensor apparatus as claimed in claim 1 wherein the extraction element or elements initially activated by the controller are selected randomly.

15. (Previously Presented) The sensor apparatus as claimed in claim 9 wherein the pulsator

Appl. No. 10/553,332 Amendment and Response

valve of non-activated extraction elements are partially activated during extraction of milk from an activated extraction element.

16. (Previously Presented) The sensor apparatus as claimed in claim 15 wherein partial activation of an extraction element does not cause milk to be extracted and delivered to the single collection line.

17. (Previously Presented) The sensor apparatus as claimed in claim 1 which includes an indicator adapted to receive an output signal from the sensor, the indicator being adapted to issue an alarm signal indicating abnormal milk has been delivered from an extraction element or elements.

18. (Previously Presented) The sensor apparatus as claimed in claim 17 which includes a diversion system associated with the indicator to isolate abnormal milk.

19. (Currently Amended) The sensor apparatus as claimed in claim 17 wherein milk abnormality is detected through a comparison of ratios between sensor output signals obtained from milk extracted from indicating the detected property of the milk extracted by an extraction element and an alternative extraction element or elements.

20. (Previously Presented) The sensor apparatus as claimed in claim 17 wherein a rolling average of sensor readings is employed to detect abnormalities in extracted milk.

21-25. (Cancelled).